## **SEQUENCE LISTING**

Hoechst Schering AgrEvo GmbH

<110>

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:	Nucleic acid molecules encoding a $\beta$ -amylase, plants which synthesize a modified starch, the generation of the plants, their use, and the modified starch										
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- Val Ser Val Gln Lys Thr Gly Thr Glu Ile Asp Arg Val Ser Pro Ser 50 55 60
- Pro Ser Pro Pro Met Ser Pro Met Met Gly Gly Gly Met Arg Pro Asp 65 70 75 80
- Leu Leu Ala Cys Gln Ala Leu Met Glu Ala Gln Val Asp Glu Val Val
  85 90 95
- Glu Arg Glu Tyr Lys Val Arg Asn Ser Ser Glu Lys Glu Lys Gly Val 100 105 110
- Pro Val Phe Val Met Met Pro Leu Asp Ser Val Lys Met Asp His Thr 115 120 125
- Val Asn Arg Lys Lys Ala Met Asn Ala Ser Leu Gln Ala Leu Lys Ser 130 135 140
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  145 150 155 160
- Arg Asp Ala Pro Gly Glu Tyr Asn Trp Gly Gly Tyr Ala Glu Leu Met 165 170 175
- Glu Met Ala Lys Lys His Gly Leu Lys Val Gln Ala Val Met Ser Phe 180 185 190
- His Gln Cys Gly Gly Asn Val Gly Asp Ser Cys Thr Ile Pro Leu Pro 195 200 205
- Arg Trp Val Val Glu Glu Met Glu Lys Asp Pro Asp Leu Ala Tyr Thr 210 225 220
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Ile	Val	Glu 275	Ile	Gln	Val	Gly	Met 280	Gly	Pro	Ala	Gly	Glu 285	Leu	Arg	Ту
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425

Gln Met Leu Ala Arg His Gly Ala Val Phe Asn Phe Thr Cys Val Glu
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Leu Val Arg Gln Val Ala Leu Ala Thr Gln Glu Ala Gln Val Pro Leu 465 470 475 480

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Ile Leu Gln Ala Ser Ser Leu Asn Ile Asn Asp Gln Ser Gly Asp Arg
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Glu Met Cys Ala Phe Thr Tyr Leu Arg Met Asn Pro Asp Leu Phe His 515 520 525

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Gly Lys Asp Ala Asn Lys Cys Arg Glu Gln Val Glu Arg Glu Ala Glu 545 550 555 560

His Phe Val His Ile Thr Gln Pro Leu Val Gln Glu Ala Ala Ala Ala 565 570 575

Leu Met His

Abstract

Nucl ic acid molecules encoding a  $\beta$ -amylas, plants which synthesize a modified starch, the generation of the plants, their use, and the modified starch

The present invention relates to nucleic acid molecules which encode a protein with the activity of a potato β-amylase and to processes for the generation of transgenic plant cells and plants which synthesize a modified starch. Moreover, the present invention relates to vectors and host cells comprising the nucleic acid molecules according to the invention, to the plant cells and plants originating from the processes according to the invention, to the starch synthesized by the plant cells and plants according to the invention, and to processes for the production of this starch.